This listing of claims will replace all prior versions, and listings, of claims in the application:

# **LISTING OF CLAIMS:**

### Claim 1. (Previously Presented) Compounds of the formula I

$$R^1$$
 $N-N$ 
 $S$ 
 $R^3$ 

in which

 $R^1$  and  $R^2$  are each, independently of one another, H, OH,  $OR^8$ ,  $-SR^8$ ,  $-SOR^8$ ,  $-SO_2R^8$  or Hal,

 $R^1$  and  $R^2$  together are alternatively -OCH<sub>2</sub>O- or -OCH<sub>2</sub>CH<sub>2</sub>O-,

 $R^3$  and  $R^{3^{\prime}}$  are each, independently of one another, H, A"R^7, COA"R^7, COOA"R^7,  $CONH_2, CONHA"R^7, CON(A"R^7)(A""R^7), CONR^{10}Het, NH_2, NHA"R^7, \\ N(A"R^7)(A""R^7), NCOA"R^7 \text{ or } NCOOA"R^7,$ 

V and W  $\;\;$  are oxygen or  $\underline{two}$  hydrogen substituents, with the proviso that, if V is  $O,\,W$  is  $H,\!H,$ 

and vice versa,

B is an aromatic isocyclic or heterocyclic radical, which may be unsubstituted or monosubstituted, disubstituted or trisubstituted by R<sup>4</sup>, R<sup>5</sup> and/or R<sup>6</sup>,

X is N or  $CR^{3'}$ ,

 $R^4, R^5$ 

and  $R^6$  are each, independently of one another, H, A"R<sup>7</sup>, OH, OA"R<sup>7</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHA"R<sup>7</sup>, N(A"R<sup>7</sup>)(A""R<sup>7</sup>), NHCOA"R<sup>7</sup>, NHCOOA"R<sup>7</sup>, NHCONH<sub>2</sub>, NHCONHA"R<sup>7</sup>, NHCON(A"R<sup>7</sup>)(A""R<sup>7</sup>), Hal, COOH, COOA"R<sup>7</sup>, CONH<sub>2</sub>, CONHA"R<sup>7</sup>, CON(A"R<sup>7</sup>)(A""R<sup>7</sup>),

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R<sup>7</sup> is H, COOH, COOA, CONH<sub>2</sub>, CONHA, CONAA', NH<sub>2</sub>, NHA, NAA', NCOA, NCOOA, OH or OA,

R<sup>8</sup> is A, cycloalkyl having 3-7 carbon atoms, alkylenecycloalkyl having 4-8 carbon atoms or alkenyl having 2-8 carbon atoms,

R<sup>9</sup> is alkyl having 1-10 carbon atoms, cycloalkyl having 3-7 carbon atoms,

alkylenecycloalkyl having 4-8 carbon atoms or alkenyl having 2-8 carbon atoms,

in which one, two or three CH2 groups may be replaced by O, S, SO, SO<sub>2</sub>,

NH, NMe, NEt and/or by -CH=CH- groups, and/or

1-7 H atoms may be replaced by F and/or Cl,

Y is alkylene having 1-10 carbon atoms or alkenylene having 2-8 carbon atoms, in which one, two or three CH<sub>2</sub> groups may be replaced by O, S, SO, SO<sub>2</sub>, NH or NR<sup>9</sup> and/or

1-7 H atoms may be replaced by F and/or Cl,

A and A' are each, independently of one another, alkyl having 1-10 carbon atoms or alkenyl having 2-8 carbon atoms,

in which one, two or three CH2 groups may be replaced by O,

S, SO, SO<sub>2</sub>, NH or NR<sup>9</sup> and/or

1-7 H atoms may be replaced by F and/or Cl,

or

aryl or Het,

A and A' together are alternatively an alkylene chain having 2-7 carbon

atoms, in which one, two or three CH<sub>2</sub> groups may be replaced by O, S, SO, SO<sub>2</sub>, NH, NR<sup>9</sup>, NCOR<sup>9</sup> or NCOOR<sup>9</sup>,

A" and A"

are each, independently of one another,

<u>a bond</u>, alkylene having 1-10 carbon atoms, alkenylene having 2-8 carbon atoms or cycloalkylene having 3-7 carbon atoms,

in which one, two or three CH<sub>2</sub> groups may be replaced by O, S, SO, SO<sub>2</sub>, NH or NR<sup>9</sup> and/or

1-7 H atoms may be replaced by F and/or Cl,

A" and A"

together are alternatively an alkylene chain having 2-7 carbon atoms, in which one, two or three CH<sub>2</sub> groups may be replaced by O, S, SO, SO<sub>2</sub>, NH, NR<sup>9</sup>, NCOR<sup>9</sup> or NCOOR<sup>9</sup>,

aryl

is phenyl, naphthyl, fluorenyl or biphenyl, each of which is unsubstituted or monosubstituted, disubstituted or trisubstituted by Hal,  $R^{11}$ ,  $OR^{10}$ ,  $N(R^{10})_2$ ,  $NO_2$ , CN,  $COOR^{10}$ ,  $CON(R^{10})_2$ ,  $NR^{10}COR^{10}$ ,  $NR^{10}CON(R^{10})_2$ ,  $NR^{10}SO_2A$ ,  $COR^{10}$ ,  $SO_2N(R^{10})_2$  or  $S(O)_mR^{11}$ ,

 $R^{10}$  i

is H or alkyl having 1-6 carbon atoms,

 $R^{11}$ 

is alkyl having 1-6 carbon atoms,

Het

is a monocyclic or bicyclic saturated, unsaturated or aromatic heterocyclic ring having 1 or 2 N, O and/or S atoms, which may be unsubstituted or monosubstituted or disubstituted by carbonyl oxygen, Hal,  $R^{11}, OR^{10}, N(R^{10})_2, NO_2, CN, COOR^{10}, CON(R^{10})_2, NR^{10}COR^{10}, NR^{10}COR^{10}, NR^{10}CON(R^{10})_2, NR^{10}SO_2R^{11}, COR^{10}, SO_2NR^{10} and/or S(O)_mR^{11},$ 

Hal

is F, Cl, Br or I,

m

is 0, 1 or 2,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 2. (Previously Presented) Compounds according to Claim 1, in which  $R^1$  and  $R^2$  are each, independently of one another, alkoxy having 1, 2, 3, 4, 5 or 6 carbon atoms,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 3. (Previously Presented) Compounds according to Claim 1, in which  $R^1$  and  $R^2$  are each, independently of one another, H, methoxy, ethoxy, benzyloxy, propoxy, isopropoxy, difluoromethoxy, F, Cl, cyclopentyloxy, cyclohexyloxy or cycloheptyloxy,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 5. (Previously Presented) Compounds according to Claim 1, in which R<sup>1</sup> 4-methoxy or 4-ethoxy,

R<sup>2</sup> is 3-methoxy, 3-ethoxy, 3-propoxy, 3-isopropoxy or 3-cyclopentyloxy, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 6. (Previously Presented) Compounds according to Claim 1, in which  $R^3$  is H or  $A''R^7$ , a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 7. (Previously Presented) Compounds according to Claim 1, in which X is N or CH, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 8. (Previously Presented) Compounds according to Claim 1, in which

B is an aromatic isocyclic or monocyclic saturated or unsaturated heterocyclic ring having 1 or 2 N, O and/or S atoms,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 9. (Previously Presented) Compounds according to Claim 1, in which B is phenyl, pyridyl, pyridyl N-oxide, thienyl, furyl, pyrrolyl, pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, isoxazolinyl, oxazolinyl, thiazolinyl, pyrazolinyl, imidazolinyl, naph-thyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl or quinoxalinyl, each of which is unsubstituted or may be monosubstituted, disubstituted or trisubstituted by R<sup>4</sup>, R<sup>5</sup> and/or R<sup>6</sup>, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 10. (Previously Presented) Compounds according to Claim 1, in which B is phenyl, pyridyl, pyridyl N-oxide, thienyl, furyl, pyrrolyl, pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, isoxazolinyl, oxazolinyl, thiazolinyl, pyrazolinyl, imidazolinyl, naphthyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl or quinoxalinyl, each of which is unsubstituted or may be monosubstituted, disubstituted or trisubstituted by OH, OA, NO<sub>2</sub>, NH<sub>2</sub>, NAA',

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 11. (Previously Presented) Compounds according to Claim 1, in which

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B is unsubstituted pyridyl, pyridyl N-oxide, thienyl or pyrazinyl, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 12. (Previously Presented) Compounds according to Claim 1, R<sup>1</sup> and R<sup>2</sup> are each, independently of one another, alkoxy having 1, 2, 3, 4, 5 or 6 carbon atoms.

X is N or CH,

 $R^3$  is H or A" $R^7$ ,

A" and A" are each, independently of one another, absent or alkylene having 1-10 carbon atoms, in which one CH<sub>2</sub> group may be replaced by NH or NR<sup>9</sup>,

A" and A" together are alternatively an alkylene chain having 2-7 carbon atoms, in which one CH<sub>2</sub> group may be replaced by NH or NR<sup>9</sup>,

B is phenyl, pyridyl, pyridyl N-oxide, thienyl, furyl, pyrrolyl, pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, isoxazolinyl, oxazolinyl, thiazolinyl, pyrazolinyl, imidazolinyl, naphthyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl or quinoxalinyl, each of which is unsubstituted or may be monosubstituted, disubstituted or trisubstituted by OH, OA, NO<sub>2</sub>, NH<sub>2</sub>, NAA',

R<sup>7</sup> is H, COOH, NHA or NAA',

R<sup>9</sup> is alkyl having 1-6 carbon atoms,

A and A' are each, independently of one another, alkyl having 1-10 carbon atoms, in which 1-7 H atoms may be replaced by F and/or Cl,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

#### Claim 13. (Previously Presented) Compounds according to Claim 1, in which

R<sup>1</sup> is 4-methoxy or 4-ethoxy,

R<sup>2</sup> is 3-methoxy, 3-ethoxy, 3-propoxy, 3-isopropoxy or 3-cyclopentyloxy,

X is N,

R<sup>3</sup> is H or alkyl having 1-6 carbon atoms,

B is phenyl, pyridyl, pyridyl N-oxide, thienyl, furyl, pyrrolyl,

pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, isoxazolinyl, oxazolinyl, thiazolinyl, pyrazolinyl, imidazolinyl, naphthyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl or quinoxalinyl, each of which is unsubstituted or may be monosubstituted, disubstituted or trisubstituted by OH, OA, NO<sub>2</sub>, NH<sub>2</sub>, NAA',

 $R^7$  is H,

R<sup>9</sup> is alkyl having 1-6 carbon atoms,

A and A' are each, independently of one another, alkyl having 1-10 carbon atoms, in which 1-7 H atoms may be replaced by F and/or Cl,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

## Claim 14. (Previously Presented) Compounds according to Claim 1, in which

R<sup>1</sup> is 4-methoxy or 4-ethoxy,

R<sup>2</sup> is 3-methoxy, 3-ethoxy, 3-propoxy, 3-isopropoxy or 3-cyclopentyloxy,

x is N,

R<sup>3</sup> is H or alkyl having 1-6 carbon atoms,

V is H,H, W is O,

B is unsubstituted pyridyl, pyridyl N-oxide, thienyl or pyrazinyl, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all

ratios.

Claim 15. (Previously Presented) Compounds according to Claim 1, in which

R<sup>1</sup> is 4-methoxy or 4-ethoxy,

R<sup>2</sup> is 3-methoxy, 3-ethoxy, 3-propoxy, 3-isopropoxy or 3-cyclopentyloxy,

X is N,

R<sup>3</sup> is H or alkyl having 1-6 carbon atoms,

V is H,H,

W is O,

B is unsubstituted pyridyl, pyridyl N-oxide, thienyl or pyrazinyl or phenyl, which is unsubstituted or may be monosubstituted by OH, OA, NO<sub>2</sub>, NH<sub>2</sub>, NAA',

$$-N \longrightarrow V \qquad , \qquad -N \longrightarrow N \qquad \qquad N \longrightarrow N \longrightarrow N$$

or 
$$N = \bigvee_{N=1}^{N} \bigvee_{N=1}^{$$

A and A' are each, independently of one another, alkyl having 1-10 carbon atoms, in which 1-7 H atoms may be replaced by F and/or Cl, a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

Claim 16. (Previously Presented) Compounds of the formula I according to Claim 1 from the group consisting of

a) 1-[3-(3-cyclopentyloxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-2-(1-oxypyridin-2-yl)thiazol-5-yl]methanone,

- b) 1-[3-(3-isopropoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-2-(1-oxypyridin-2-yl)thiazol-5-yl]methanone,
- c) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-2-(1-oxypyridin-2-yl)thiazol-5-yl]methanone,
- d) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyridin-3-ylthiazol-5-yl)methanone,
- e) 1-[3-(3-isopropoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-(4-methyl-2-pyridin-3-ylthiazol-5-yl)methanone,
- f) 1-[3-(3-cyclopentyloxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyridin-3-ylthiazol-5-yl)methanone,
- g) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyridin-2-ylthiazol-5-yl)methanone,
- h) 1-[3-(3-isopropoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyridin-2-ylthiazol-5-yl)methanone,
- i) 1-[3-(3-cyclopentyloxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyridin-2-ylthiazol-5-yl)methanone,
- j) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-(4-methyl-2-pyrazin-2-ylthiazol-5-yl)methanone,
- k) 1-[3-(3-isopropoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyrazin-2-ylthiazol-5-yl)methanone,
- 1) 1-[3-(3-cyclopentyloxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-pyrazin-2-ylthiazol-5-yl)methanone,
- m) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-thiophen-2-ylthiazol-5-yl)methanone,
- n) 1-[3-(3-isopropoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-thiophen-2-ylthiazol-5-yl)methanone,
- o) 1-[3-(3-cyclopentyloxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-(4-methyl-2-thiophen-2-ylthiazol-5-yl)methanone,
- p) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-2-phenylthiazol-5-yl]methanone,
- q) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-2-(4-methoxyphenyl)thiazol-5-yl]methanone,
- r) 1-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-yl]-1-[4-methyl-

2-(4-aminophenyl)thiazol-5-yl]methanone,

- s) 2-[(4-{5-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-carbonyl]-4-methylthiazol-2-yl}phenyl)hydrazono]malononitrile,
- t) 2-[(4-{5-[3-(3-ethoxy-4-methoxyphenyl)-3,4,5,6-tetrahydropyridazin-1-carbonyl]-4-methylthiazol-2-yl}phenyl)hydrazono]-2-(1*H*-tetrazol-5-yl)acetonitrile,

a pharmaceutically acceptable salt or stereoisomers thereof, or a mixture thereof in all ratios.

**Claim 17.** (**Previously Presented**) Compounds of the formula I according to Claim 1 as phosphodiesterase IV inhibitors.

Claim 18. (Previously Presented) Process for the preparation of compounds of the formula I or salts thereof, comprising

a) for the preparation of a compound of the formula I in which V is H,H and W is O, reacting

a compound of the formula II

$$R^1$$
 $N-N$ 
 $R^2$ 

in which

 $R^1$  and  $R^2$  are as defined in Claim 1, with a compound of the formula III

$$\begin{array}{c|c}
 & B \\
 & X \\
 & B \\$$

in which

L is Cl, Br, I or a free or reactively functionally modified OH group,

and R<sup>3</sup>, X and B are as defined in Claim 1, with the proviso that any further OH and/or amino group present is protected, and subsequently, if desired, a protecting group is removed,

and/or

- b) converting one or more radicals  $R^1$ ,  $R^2$ ,  $R^3$  and/or B in a compound of the formula I into one or more other radicals  $R^1$ ,  $R^2$ ,  $R^3$  and/or B by
  - i) cleaving an ether or ester,
  - ii) alkylating or acylating an OH function,
  - iii) reductively alkylating an amino group,
  - iv) reacting an amino group with malononitrile, or
  - v) converting a cyano group into a tetrazole group,

and/or

c) converting a basic compound of the formula I is converted into one of its salts by treatment with an acid.

Claim 19. (Previously Presented) Medicament comprising at least one compound of the formula I according to Claim 1 and/or pharmaceutically usable salt or stereoisomers thereof, including mixtures thereof in all ratios, and, optionally, excipients and/or adjuvants.

### Claim 20. (Canceled)

Claim 21. (Previously Presented) A method for treating a disease, comprising administering to a host in need thereof, an effective amount of a compound according to Claim 1, wherein the disease is: allergic diseases, asthma, chronic bronchitis, atopic dermatitis, psoriasis or other skin diseases, inflammatory diseases, autoimmune diseases, sepsis, memory disorders, atherosclerosis, AIDS or myocardial disease.

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#### Claim 22. (Canceled)

Claim 23. (Canceled)

**Claim 24.** (**Previously Presented**) A method according to Claim 21 wherein the disease is a myocardial diseases.

**Claim 25.** (**Previously Presented**) A method according to Claim 24 wherein the myocardial disease has inflammatory and immunological properties.

Claim 26. (Previously Presented) A method for treating a disease, comprising administering to a host in need thereof, an effective amount of compound according to Claim 1, wherein the disease is: coronary heart disease, reversible or irreversible myocardial ischaemia/reperfusion damage, acute or chronic heart failure or restenosis including in-stent restenosis and stent-in-stent restenosis.

Claim 27. (Canceled)

Claim 28. (Canceled)

Claim 29. (Canceled)

Claim 30. (Previously Presented) A method for treating a disease, comprising administering to a host in need thereof, an effective amount of a compound according to Claim 1, wherein the disease is allergic diseases, asthma, chronic bronchitis, atopic dermatitis, psoriasis, rheumatoid arthritis, multiple sclerosis, Crohn's disease, diabetes mellitus, ulcerative colitis, osteoporosis, transplant rejection reactions, cachexia or atherosclerosis.

Claim 31. (New) A method of inhibiting proliferation of T-cells in a host in need thereof, comprising administering to said host an effective amount of a compound of claim 1.

Claim 32. (New) A method of inhibiting cytokine production in human peripheral blood monocytes in a host in need thereof, comprising administering to said host an effective

amount of a compound of claim 1.